

Translation

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 2003P00991WO	FOR FURTHER ACTION See Form PCT/IPEA/416	
International application No. PCT/EP2004/007392	International filing date (day/month/year) 06.07.2004	Priority date (day/month/year) 30.07.2003
International Patent Classification (IPC) or national classification and IPC A47L15/48		
Applicant BSH BOSCH UND SIEMENS HAUSGERÄTE GMBH		

<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>7</u> sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> (sent to the applicant and to the International Bureau) a total of <u>2</u> sheets, as follows:</p> <p><input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>	
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the report</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>	

Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

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Box No. I

Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language _____, which is the language of a translation furnished for the purposes of:
- ☐ international search (Rule 12.3 and 23.1(b))
- ☐ publication of the international application (Rule 12.4)
- ☐ international preliminary examination (Rule 55.2 and/or 55.3)
2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:
- ☐ the international application as originally filed/furnished
- ☒ the description:
- pages 1-9 as originally filed/furnished
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☒ the claims:
- nos. _____ as originally filed/furnished
- nos.* _____ as amended (together with any statement) under Article 19
- nos.* 1-9 received by this Authority on 19.05.2005 with letter of 18.05.2005
- nos.* _____ received by this Authority on _____
- ☒ the drawings:
- sheets 1/4-4/4 as originally filed/furnished
- sheets* _____ received by this Authority on _____
- sheets* _____ received by this Authority on _____
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages _____
- ☐ the claims, nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (specify): _____
- ☐ any table(s) related to sequence listing (specify): _____
4. ☒ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages _____
- ☒ the claims, nos. 9
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (specify): _____
- ☐ any table(s) related to sequence listing (specify): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

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Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement		
1. Statement			
Novelty (N)	Claims	1-8	YES
	Claims		NO
Inventive step (IS)	Claims		YES
	Claims	1-8	NO
Industrial applicability (IA)	Claims	1-8	YES
	Claims		NO
2. Citations and explanations (Rule 70.7)			
1. <u>Independent device claim 1</u>			
1.1 According to the wording of independent claim 1, document DE-A-3741652 discloses a dishwashing machine (see column 1, paragraph 1) having a washing compartment (1), wherein the dishwashing machine has a (closed) duct system connected to the washing compartment in such a way that air is able to circulate (see figure), wherein a heat pipe (13) serving to preheat the dehumidified air extends into the air duct system, such that the drying effect is improved (see column 2, lines 22-26).			
1.2 The subject matter of the current independent claim 1 therefore differs from that of document DE-A-3741652 in that the heat pipe (10, 10', 10'', 10''') protrudes with both ends into the duct system (4, 4', 4'', 4'''), the heat pipe being used to both cool and heat the air guided through it. In contrast, in the machine according to document DE-A-3741652 the air is cooled by means of a heat exchanger (9) integrated into the duct system.			

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1.3 The technical effect achieved consists in the fact that the air heating source and the air cooling source is integrated into a single unit, which can reduce energy consumption. The objective technical object is therefore understood to be that of designing a dishwashing machine of this kind.

1.4 Document US-A-3985182 discloses a heat pipe (8, figure 1) for household appliances, which serves to both cool and heat a fluid. This heat pipe functions in the same way as the heat pipe of claim 1, as described on page 6, line 34, to page 7, line 2 (see column 3, line 4, to column 4, line 15, of document US-A-3985182).

It would therefore appear obvious to a person skilled in the art to replace the heat pipe (13) and the heat exchanger (9) of the dishwashing machine according to DE-A-3741652 with the above kind of heat pipe in order to cool and heat the air in the duct system and in this way to arrive at the subject matter of the present independent claim 1, without thereby exercising inventive skill.

1.5 Consequently, the present application does not satisfy the requirements of PCT Article 33(3) because the subject matter of claim 1 does not involve an inventive step relative to the prior art as defined by PCT Rule 65.

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2.	<p data-bbox="407 363 784 394"><u>Dependent claims 2-8</u></p> <p data-bbox="407 464 1333 688">These dependent claims contain no features which, combined with the features of any claim to which they refer, meet the PCT requirements for inventive step (PCT Article 33(3)). The reasons are as follows:</p> <p data-bbox="289 758 1360 1234">2.1 Claim 2: the subject matter of claim 2 does not concern any further advantageous structural features of the dishwashing machine according to claim 1, but a method for drying the dishes in a dishwashing machine. Therefore, claim 2 does not meet the requirements of PCT Rule 6.4(a). With the dishwashing machine according to document DE-A-3741652, the air must be guided from the washing compartment to the duct system during the program step "drying".</p> <p data-bbox="289 1304 1341 1482">2.2 Claim 3: the subject matter of claim 3 is essentially disclosed in document DE-A-3741652, since this air duct system has both an air inlet (7) and an air outlet (8), as well as a fan (10).</p> <p data-bbox="289 1551 1287 1675">2.3 Claims 4 and 5: the heat pipe according to document US-A-3985182 both cools and heats the air.</p> <p data-bbox="289 1745 1365 1923">2.4 Claim 6: the subject matter of this claim is obvious to a person skilled in the art. If the air is not sufficiently heated, the arrangement of an additional air heating source appears to be a</p>

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routine measure.

- 2.5 Claims 7 and 8: to a person skilled in the art proceeding from the teaching of document DE-A-3741652 (see column 2, lines 44-47), the use of a condenser in a closed air duct system in a dishwashing machine is a routine measure.

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Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of:

Box I:

Basis of the report

1. Dependent claim 9

The subject matter of the present claim 9 is not explicitly disclosed in the original document, nor implied therein. According to the examples, an air-cooling precedes the heating.

The amendments submitted with the letter of 18 May 2005 therefore introduce substantive matter which, contrary to PCT Article 34(2)(b), goes beyond the disclosure in the international application as filed.